

Can physicians' exercise counseling help to increase physical activity levels among patients with cancer?

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Research for a Life without Cancer

Introduction

Physical activity (PA) has been shown to be highly beneficial for physical and psychological health of people with cancer¹. Nevertheless, most individuals tend to decrease their PA levels after being diagnosed with cancer². Physicians, who are often perceived as important contact persons, could play an important role in increasing patients' PA³. However, the effects and influencing factors of physicians' exercise counseling on patients' PA have not been sufficiently investigated so far.

Objectives:

- Investigate the association between physicians' exercise counseling and post-diagnosis PA in patients with cancer
- Explore the mediating role of patients' satisfaction with exercise counseling and moderating role of patients' pre-diagnosis PA

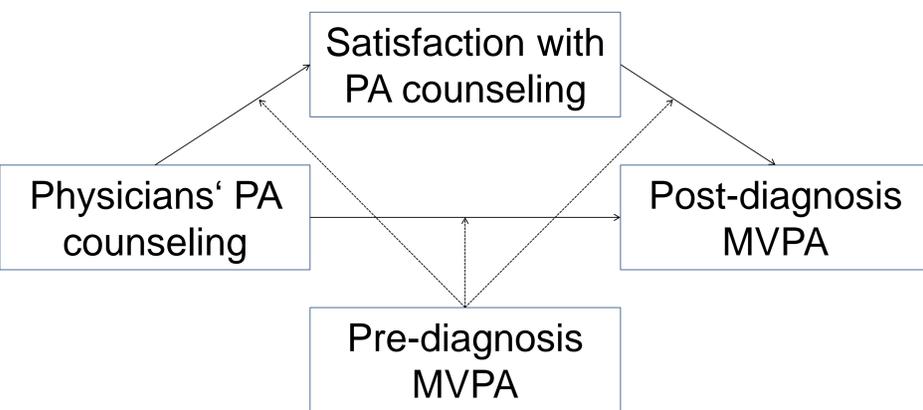


Fig 1. Conceptual research model

Methods

Study population

- 1,002 patients with cancer

Main variables (self-reported):

- Weekly duration of moderate-to-vigorous PA (MVPA) pre-diagnosis and last week
- Physicians' PA counseling: 5A framework
 1. Assess current PA level
 2. Advise on amount and type
 3. Agree on PA goals
 4. Assist in achieving goals
 5. Arrange follow up
- Satisfaction with exercise counseling



Weighted sum score (5A Score)

Statistics

- Conditional Process Analysis

Results

Table 1. Frequencies of completed 5A steps

Assess	Advise	Agree	Assist	Arrange
44.9%	68.5%	5.7%	7.7%	11.9%

PA counseling and post-diagnosis PA

- Sig. association of 5A score and satisfaction
- Associations of 5A score and post-diagnosis MVPA as well as satisfaction and post-diagnosis MVPA differed by pre-diagnosis MVPA
 - *5A score*: Association only significant for individuals no or low pre-diagnosis MVPA
 - *Satisfaction*: Association only significant for individuals highest pre-diagnosis MVPA

Results (cont.)

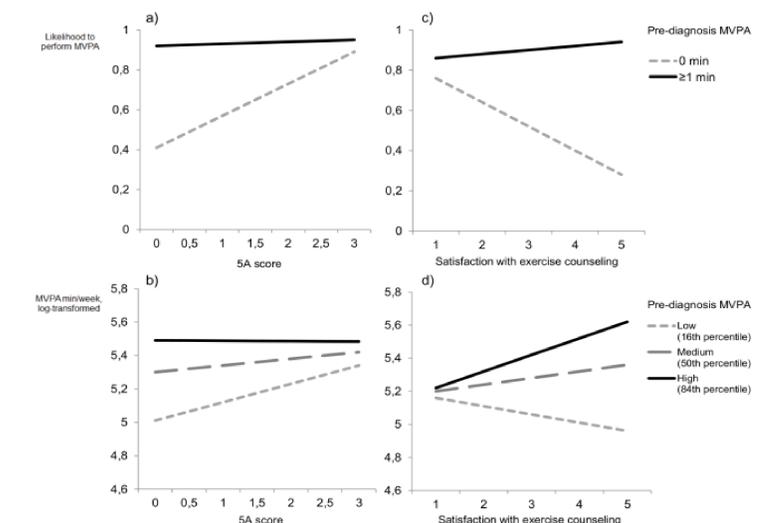


Fig 2. Association of PA counseling and satisfaction with post-diagnosis MVPA at different levels of pre-diagnosis MVPA

- Different mediating pathways for effect of counseling on post-diagnosis PA:
 - *Direct effect* for previously inactive and less active individuals
 - *Effect mediated* through satisfaction for previously highly active individuals

Discussion and Conclusion

Our findings highlight the relevance of physicians' exercise counseling for PA in people with cancer. A comprehensive counseling that is tailored to the individual's exercise experience appears to be particularly beneficial. Supporting physicians in providing effective PA counseling and establishing broader exercise networks might facilitate the implementation into clinical routine.

¹ Demark-Wahnefried, CA-Cancer J. Clin, 2015; Patel, Med Sci Sports Exerc, 2019
² Eng, Support Care Cancer, 2018; Fassier, Medicine, 2016; Thraen-Borowski, PLOS, 2017
³ Fisher, BMJ Open, 2015; Tarasenko, Prev Med, 2017